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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,712	06/30/2003	Richard S. Perry	884.941US1	3752

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EXAMINER
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NGUYEN, VINH P

ART UNIT	PAPER NUMBER
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2829

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/612,712	<b>Applicant(s)</b> PERRY, RICHARD S.	
	<b>Examiner</b> VINH P. NGUYEN	<b>Art Unit</b> 2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 15-20 and 22-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 15-20 and 22-29 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Claims 2,15-20,22-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, it is unclear whether the surface of the element is able to contact both primary side and secondary side? Should the primary side be “secondary side”? Furthermore, it is unclear how “a ground plane” is interrelated and associated with “a contact associated with a secondary side” of the device under test in claim 1. Are they different from each other?

In claim 15, if the first test probe is referred to elements “410”, “412”, “414”, “416”, “418”, “420”, “422”, then it is unclear what “an electric contact” in a first plane of a device under test comprises of. Furthermore, it is unclear what the first plane comprises of.

In claim 16, it is unclear how “an electrical device having elements to be tested on a first plane and on a second plane” are interrelated and associated with the device under test? Is this electrical device the same as the device under test.

In claim 18, the limitation of “the first pad and the second pad contacted with a probe that includes a portion that passes through an opening in the circuit board” appears to be inaccurate because the probe portion that passes through an opening in the circuit board contacts only the second pad. Furthermore, it is unclear how the second pad in the second plane is interrelated and associated with the electrical component.

In claim 22, it is unclear how the printed circuit board and the component are interrelated and associated with the device under test in claim 15.

In claim 23, the limitation of “at least one of the pads in the first or second plane contacted by extending an element through the device under test” is inaccurate because “an element through the device under test” can not contact other pad in a second plane on the device under test or a plurality of pads in a first plane on the device under test.

In claim 25, it is unclear how the probe is interrelated and associated with the element in claim 23.

In claim 26, it is unclear whether it is possible for a single probe to contact both the at least one pad and a ground plane because the at least one pad is different from a ground plane.

In claim 28, it is unclear where “a ground plane” is from? Is it on the first plane or the second plane? If the ground plane on the first plane, it is unclear whether the element and the shield element contact the same ground plane? It is also unclear what “an element” on line 2 and “an element shields the probe” on line 5 comprise of? Are they different from each other. Furthermore, the limitation of “a probe having a free end positioned in a second plane for electrically contacting the second plane in the device under test” appears to be inaccurate since the free end of the probe does not contact the second plane (top surface “610”) in the device under test.

The dependent claims not specifically address share the same indefiniteness as they depend from rejected base claims.

2. Claims 2,15,18-20,23-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 2, it appears that the limitation of “the element having the surface to contact the primary side includes features for contacting a ground plane on the secondary side of the device under test” does not have support in the original specification.

In claim 18, the limitation of “the first pad and the second pad contacted with a probe that includes a portion that passes through an opening in the circuit board...” does not have support in the original specification.

In claim 23, the limitation of “ at least one of the pads in the first or second plane contacted by extending an element through the device under test “ does not have support in the original specification.

In claim 28, the limitation of “ a probe having a free end positioned in a second plane for electrically contacting the second plane (top surface ) in the device under test” does not have support in the original specification.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 6 are rejected under 35 U.S.C. 102( e) as being anticipated by Novak et al (Pat #6,538,461)

As to claim 1, Novak et al disclose an apparatus for testing a printed circuit board (100) , a contact (112-P2) associated with a primary side (top surface) of the printed circuit board under test (100), a probe (112-F1) having a free end making contact with the contact (112-P2), a contact (112-G) associated with a secondary side (bottom surface) of the printed circuit board under test (100) and an element (112-F2) having a surface (probe tip) electrically contact the contact (112-G).

As to claim 6, it appears that the element (112-F2) includes features for contacting a ground plane (103) dimensioned to prevent interference from noise such as radio frequency of a selected frequency.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102( b) as being anticipated by Plante (Pat #4,912,400).

As to claim 1, Plante discloses an apparatus for testing a printed circuit board as shown in figures 1-2 having a printed circuit board under test (50), a probe (90) with its free end (probe tip) positioned for electrically contacting a contact associated with a primary side (top surface) of the printed circuit board under test (50), an element (94) having a surface (probe tip) for electrically contacting a contact associated with second side (bottom surface) of the printed circuit board under test (50) .

7. Claims 1,3-6 ,23-25 are rejected under 35 U.S.C. 102( b) as being anticipated by McClure ET AL (Pat #6,717,425).

As to claim 1, McClure et al disclose an apparatus for testing a printed circuit board as shown in figure 1b having a printed circuit board under test (18), a probe (20) with its free end (probe tip) positioned for electrically contacting a contact (not shown) associated with a primary side (top surface) of the printed circuit board under test (18), an element (14) having a surface (probe tip) for electrically contacting a contact (24) associated with second side (bottom surface) of the printed circuit board under test (18) . It is noted that even the contact associated with a primary is not shown in the drawing, the printed circuit board (18) would inherently has that contact on the top surface in order for the probe (20) to perform the test.

As to claim 3, the length of the probe (20) is greater than the length of the element (14) as clearly shown in figure 3a.

As to claim 4, the element (14) shields the probe (20).

As to claim 5, the element (14) surrounds the probe (20) to shield the probe (20).

As to claim 6, the element (14) that shields the probe further comprises features (body of the element "14") for contacting a ground plane in order to prevent interference from radio signals of a selected frequency.

As to claim 23, McClure et al disclose an apparatus for testing a printed circuit board as shown in figure 1b having a step of contacting a plurality of pads (24) located in a first plane on the device under test (18) by a ground shield connection (14), contacting at least one other pad (not shown) in a second plane (top surface) on the device under test (18) substantially simultaneously as contacting the plurality of pads located in the second plane (bottom surface of the printed circuit board under test (18)) by an element (20) extending through the board under test (18).

As to claim 24, the plurality of pads and the at least other pad are contacts positioned near one side of the circuit board under test (18)

As to claim 25, wherein contacting the at least one pad of circuit board under test further comprises passing a probe (20) through an opening (22) in the circuit board under test (18).

a printed circuit board under test (18), a probe (20) with its free end (probe tip) positioned for electrically contacting a contact (not shown) associated with a primary side (top



surface) of the printed circuit board under test (18), an element (14) having a surface (probe tip) for electrically contacting a contact (24) associated with second side (bottom surface) of the printed circuit board under test (18) .

8. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art does not disclose “ features for contacting a ground plane include a plurality of pointed peaks separated by valleys wherein the height of the peaks are dimensioned to prevent passage of radio signals of a selected frequency” as recited in claim 7.

9. The search for claims 15,18 and 28 have been searched and no art meets the limitations of these instant claims . However, these claims are not allowed since they are indefinite and they have no original support in the specification as indicated in previous paragraphs.

10. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P. NGUYEN whose telephone number is 571-272-1964. The examiner can normally be reached on 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HA T. NGUYEN can be reached on 571-272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



VINH P NGUYEN

Primary Examiner

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03/05/07